

Appl. No. : 10/656,885
Filed : September 5, 2003

REMARKS

This paper is in response to the Office Action dated April 12, 2006. Applicant has amended the application as set forth above. Specifically, Claims 1-22 have been canceled without prejudice, and new Claims 23-47 have been added instead. All the features of new Claims 23-47 are fully supported by the originally filed application including the specification and drawings. As such, the new claims do not add new matter to the application. Upon the entry of the amendments, Claims 23-47 are pending in this application. Applicant respectfully requests the entry of the amendments and reconsideration of the application in view of the above amendments and the following remarks.

Discussion of Rejections Under 35 U.S.C. §103

The Examiner rejected Claims 1-22 under 35 U.S.C. § 103 (a) as being unpatentable over Daugman (U.S. Patent No. 5,291,560), and further in view of Daubechies et al. (Image Coding Using Wavelet Transform, IEEE Transactions on image processing, Vol. 1, No.2, April 1992). Applicant respectfully disagrees with the Examiner and submits that Claims 1-22 are patentable over the cited references. However, solely in order to clarify the features of the invention, Applicant has canceled Claims 1-22 and added new claims, Claims 23-47. In view of cancellation of Claims 1-22, the rejection is now moot.

Patentability of New Claims

Applicant would like to discuss patentability of new Claims 23-47 over the references relied on in the Office Action.

Law of Obviousness

The Patent and Trademark Office has the burden under section 103 to establish a *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-87 (Fed. Cir. 1984). To establish a *prima facie* case of obviousness, three basic criteria must be met: first, the prior art reference (or references when combined) must teach or suggest all the claim limitations; second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; finally, there must be a reasonable expectation of

success. *See* M.P.E.P. § 2143.

Disclosure of Cited References

Daugman discloses an iris image analysis using 2-D Gabor band pass filters and discretization. Daugman takes luminance data of an iris image, filters out noise from the data, and discretizes them for each concentric strips of the iris image. *See* col. 10, lines 41-59 of Daugman. The filtered and discretized luminance data is compared with previously stored iris data for determining whether the iris image matches that of the stored iris data. However, Daugman teaches or suggests neither segmentizing iris data after wavelet transforming it nor further wavelet transforming the segmentized iris data.

Daubechies discloses an image coding using wavelet transform in order to compress the image data. Daubechies takes an iris image data, transforms it to obtain information in frequencies, and quantizes the information. In order to reduce the size of image data, Daubechies then discards unwanted part of the quantized information, which has excessive details of the image. *See* page 214, between equations 18 and 19 of Daubechies. However, Daubechies teaches or suggests neither segmentizing iris data after wavelet transforming it nor further wavelet transforming the segmentized iris data.

Claim 23

Claim 23 is directed to a method of processing data representing an image of an iris of an eye. The method features segmentizing the data into a plurality of segment datas, which comprises a first segment data representing a first segment of the image. The method also features performing a wavelet transform on the first segment data, thereby producing a wavelet representation of the first segment data. Then, the method involves further segmentizing the first segment data into a plurality of subsegment datas, which comprises a first subsegment data representing a first subsegment of the image. Here, the first subsegment is a part of the first segment. Further, the method involves performing a wavelet transform on the first subsegment data, thereby producing a wavelet representation of the first subsegment data.

No Prima Facie of Obviousness is Established

As discussed above, neither Daugman nor Daubechies teaches or suggests segmentizing a piece of iris data into smaller pieces after wavelet transforming it. Further, neither Daugman nor Daubechies teach or suggests wavelet transforming the segmentized smaller pieces of iris data.

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As such, Daugman and Daubechies do not provide the claimed feature of further segmentizing the first segment data into a plurality of subsegment datas. Nor do Daugman and Daubechies teach or suggest the feature of performing a wavelet transform on the first subsegment data, thereby producing a wavelet representation of the first subsegment data. Since the combination of the references do not teach all of the claimed limitations, Daugman and Daubechies cannot establish a *prima facie* case of obviousness. Applicant respectfully submits that the new claims are patentable over Daugman and Daubechies alone or in combination.

CONCLUSION

The Applicants have endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. In view of Applicant's amendments to the claims and the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Should the Examiner have any remaining concerns, which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Respectfully submitted,

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